APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,698	09/05/2003	Eric Viscito	02CON382P-CIP	7178

25700 7590 01/23/2007 FARJAMI & FARJAMI LLP 26522 LA ALAMEDA AVENUE, SUITE 360 MISSION VIEJO, CA 92691	**EXAMINER** WONG, ALLEN C

ART UNIT	PAPER NUMBER
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/655,698	VISCITO ET AL.
	Examiner	**Art Unit**	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-21* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>05 September 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/17/04, 6/2/06</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Double Patenting

1.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg,* 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman,* 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi,* 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum,* 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel,* 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
        Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2.   Claims 1-21 are provisionally rejected under the judicially created doctrine of

obviousness-type of nonstatutory double patenting over claims 1-31 of copending

Application No. 10/600,163. This is a provisional obviousness-type double patenting

rejection since the conflicting claims have not yet been patented. Although the

conflicting claims are not identical, they are not patentably distinct from each other

because the claims in the current application 10/655,698 pertain to encoding a picture in

a sequence of pictures where a "pre-decoder buffer removal time" is used, and

copending application 10/600,163 pertain to the processing of compressed data that

also implements the use of a "pre-decoder buffer". Although the claim languages of

both applicant are not verbatim or exect, however, copending applications 10/655,698

and 10/600,163 have similar limitations, except independent claims 1, 8 and 15 of the

current application 10/655,698 are more broader in scope than independent claims 1, 5,

10, 14, 18, 26 and 29 of the copending application 10/600,163.

Applicant's submission of a terminal disclaimer can be used to overcome the

provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.
>
> When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).
>
> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 15-21 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter as follows. Claim 15 defines a "computer

software product for encoding..." embodying functional descriptive material. However,

the claim does not define a computer-readable medium or memory and is thus non-

statutory for that reason (i.e., "When functional descriptive material is recorded on some

computer-readable medium it becomes structurally and functionally interrelated to the

medium and will be statutory in most cases since use of technology permits the function

of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of

the presently claimed "computer software product for encoding..." can range from paper

on which the program is written, to a program simply contemplated and memorized by a

person. The examiner suggests amending the claim to embody the program on

"computer-readable medium" or equivalent in order to make the claim statutory. Any

amendment to the claim should be commensurate with its corresponding disclosure.

The preamble of claim 15 should be rewritten as "a computer readable-medium

encoded with a computer program comprising computer executable instructions for

encoding each picture in a sequence of pictures..."

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in
> public use or on sale in this country, more than one year prior to the date of application for patent in
> the United States.

2.   Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Veltman

(5,481,543).

Regarding claims 1 and 15, Veltman discloses a computer software product and

a method for encoding each picture in a sequence of pictures, said method comprising

the steps of:

assigning a pre-decoder buffer removal time to said picture (fig.22A, element 309);

selecting, for said picture, a number of bits, wherein the time-equivalent of said number of bits is no greater than a difference based on said pre-decoder buffer removal time of said picture and an initial arrival time of said picture into a pre-decoder buffer (fig.22B, note that when the first picture enters the pre-decoder buffer 42, it is a at the first time t1, and note the second picture enters the pre-decoder buffer 42 at the second time t2, note the third picture exits the pre-decoder buffer 42 at the third time t3, and note the fourth picture exits the pre-decoder buffer 42 at the fourth time t4; and that at element 52, the time stamps of the pictures are kept track in element 52 and then processed in element 55 for executing the decoding of pictures at video decoder 45, wherein the video input buffer size and video bit rate are used to affect the video input buffer size section 359 to select the number of bits for each picture in a sequence of pictures); and

compressing said picture to generate said number of bits (fig.22A, element 201A).

Regarding claims 2-7 and 16-21, Veltman discloses the thresholds for allocation of bits for encoding each picture of a group of pictures (figs.19-19, Veltman discloses there are higher and lower limits for preventing overflow and underflow conditions during encoding of the pictures).

Regarding claim 8, Veltman discloses an encoder for encoding a picture in a sequence of pictures, said encoder comprising:

a compressor configured to compress said picture to generate a number of bits (fig.22A, element 201A);

wherein said encoder is configured to assign a pre-decoder buffer removal time to said picture and to select, for said picture, said number of bits (fig.22A, element 309); and

wherein the time-equivalent of said number of bits is no greater than a difference based on said pre-decoder buffer removal time of said picture and an initial arrival time of said picture into a pre-decoder buffer (fig.22B, note that when the first picture enters the pre-decoder buffer 42, it is a at the first time t1, and note the second picture enters the pre-decoder buffer 42 at the second time t2, note the third picture exits the pre-decoder buffer 42 at the third time t3, and note the fourth picture exits the pre-decoder buffer 42 at the fourth time t4; and that at element 52, the time stamps of the pictures are kept track in element 52 and then processed in element 55 for executing the decoding of pictures at video decoder 45, wherein the video input buffer size and video bit rate are used to affect the video input buffer size section 359 to select the number of bits for each picture in a sequence of pictures).

Regarding claims 9-14, Veltman discloses the thresholds for allocation of bits for encoding each picture of a group of pictures (figs.19-19, Veltman discloses there are higher and lower limits for preventing overflow and underflow conditions during encoding of the pictures).
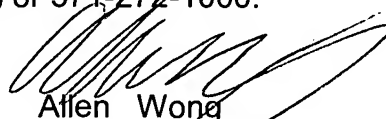
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Groody can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Allen Wong
Primary Examiner
Art Unit 2621

AW
1/18/07